

Figure 1 (page 1 of 3)

ATGATGTGCTTAAGATCCTAAGATAAGCTGGCGATTITGGCTGGGTGGGCACTCTGT	60
M M C L K I L R I S L A I L A G W A L C	(120)
TCGTCCAACTCTGAGCTGGGCTGGACACGCAAGAAATCCTTGGTTGAGAGGCAACACCTG	120
S A N S E L G W T R K K S L V E R E H L	(40)
AATCAGGTGCTGTGGAGGAGAACGTTCTTGGCTGGGGGCCAAGGTTTGAAGACCCAGA	180
N Q V L L E G E R C W L G A K V R R F R	(60)
GCTTCTCCACAGCATCACCTCTTTGGAGTCTACCCAGCAGGGCTGGGAACCTACCTAAGG	240
A S P Q H H L P C V Y P S R A G N Y L R	(80)
CCCTACCCCTGGGGGAGCAAGAAATCCATCATAACGACGACGCAAAACGACACTGAA	300
P Y P V G E O E I H H T C R S K P D T E	(100)
GGAAATGCTGTGAGCTTGTTCCTCCCGACCTGACTGAAAATCCAGCAGGACTGAGGGGT	360
G N A V S L V P P D L T E N P A C L R G	(120)
CCAGTTGAAGAGCCGCGCTGCCCATGGGTAGGGGATAGTCTATTTGGGCAATCTGAGCTG	420
A V E E P A A P W V G D S P I G O S E L	(140)
CTCGGAGATGATCAACCTTATCTCCGCAATCAAGATCCAGGAGTCTCTAGGTGAGGCC	480
L G D D D A Y L G N Q R S K E S L G E A	(160)
GGGATTCAAAACCTCAGCCATGGGCTGCACTACTACCAACCGCATTTCACAAACCTG	540
G I Q K G S A M A A T T T T A I F T T L	(180)
AACGAACCCAAACCGAGACCCAAAGGAGGGGCTGGGCCAACTCCAGGCGAGCTGGCCAA	600
N E P K P E T Q R R G W A K S R Q R R Q	(200)
GTGTGGAAGAGGCGGGCGGAAGATGGGCAGGGAGACTCCGCTATCTCTTACATTTCCAA	660
V W K R R A E D G Q G D S G I S S H F Q	(220)
CCITGGCCAGCATTCCTTAAACACAGGGTCAAAAGAGTCCACCGGAGGAAAGCAAC	720
F W P K H S L K H R V K K S P P E E S N	(240)
CAAAATGGTGGAGAGGGCTCTACCGAGAGCAGAGACTTTTAACTCCAGTAGGACTG	780
Q N G G E Y R E A E T F N S Q V G L	(260)
CCCATCTTATAGTCTCTCTCCAGGCGGGAGCGGCTCTCTCTCTCCGTCAGAGTGTCTGCT	840
F I L Y F S G R R E R L L L R P E V L A	(280)
GAGATTCCCCGGGAGCCCTTCACACTGGAAGCCTCCCTTAAACCCGAGGAGGACAGAAC	900
E I P E R T V E A W V K F E G G Q N	(300)
AACCCAGCCATCATCGCAGGTGTGTTTGATAACTGCTCCCACTGTCACTGACAAAGGC	960
N P A I I A C V F D N C S R T V S D K G	(320)
TGGCCCTGGGGATCCGCTCAGGGAGGACAGGGAAAGCGGATGCTCGCTTCTTCTTC	1020
W A L G I R S G K D K G K R D A R F F F	(340)
TCCCTCTGCAACCGACCGGTGAAGAAAGCCCATCTTGTATTAGCCACAGTCTGCTACCAA	1080
S L C T T Q V K K A T I L I S H S R Y Q	(360)
CCAGGCACATGAGCCCATGTGGCAGCCACTTACGATGGACGGCACATGGCCCTGTATGTG	1140
F G T W T H V A A T Y D G R H M A L Y V	(380)
CATCCCACTCAGGTGGGTACCACTCTACACCACTGCTGGTCCCTGAAACAGCCCTTCATG	1200
D G T Q V A S S L D Q S G F L N S P F M	(400)
GCATCTTGCCGCTCTTTTCTCTCTCCCGGAGACAGCTCTGACCATCGCCACTATTTCCT	1260
A S C R S L L L G G D S S E D G H Y F R	(420)
GGACACCTGGGCACACTGGTTTCTGGTGGACCGCCCTGCCAAAGCCATTTCAGCAC	1320
G H L C T L V P W S T A L P Q S H F Q H	(440)
AGTCTCAGCATCAAGTGGGAGGAGGAGGAGGAGTGACTTGGTCTGTGACAGCGAGCTTT	1380
S S O H S S G E E E A T D L V L T A S F	(460)
GAGCCTGTGAACACAGAGTGGGTTCCCTTTAGAGATGAGAAGTACCCACGACTTGAGGTT	1440
E P V N T E W V P F R D E K Y P R L E V	(480)
CTCCAGGCTTTGAGCCAGAGCCTGAGATTCTGTGCGCTTTGCGAGCCCCCACTCTGTGGG	1500
L Q G G F E F E F E I L S F L Q P F L C G	(500)
CAAACTCTCTGACAAATGTGAATTGATCTCCAGTACAATGATACTGGCCCTTCGG	1560
Q T V C D N V E L I S Q Y N G Y W P L R	(520)
GGAGAGAAGGTGATACGCTACAGGTGGTGAACATCTGTGATGATGAGGCTTAAACCCC	1620
C E X V I R Y Q V V N I C D D E G L N F	(540)
ATTGTGAGTGAAGGATTTCTGTCTGACGACGAGGCACTGAATGAGGCTTCAGCCGC	1680
I V S E E O I R L Q H E A L N E A F S R	(560)
TACACATCAGCTGGCAGCTGAGCGTCCACCGGTTCCACATTCACCCCTGCGACACCGG	1740
Y N I S W Q L S V H Q V H N S T L R H R	(580)
CTTGTGCTTGTCAACTCTGACCCGAGCAAGATTGGCAATGACCATTTGACCCCGAGTGT	1800
V V L V N C E P S K I G N D H C D F E C	(600)

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GAGCACCCACTCAGGCTATGATGCCCTCACTGCCGCTCAGGGCCGCTGCTACTCC 1860
 E H P L T G Y D G G D C R L Q G R C Y S (620)
 TGGAAACCGCAGGGATGGGCTCTGTACCTGGAGTGTAAACAACATGCTGAACGACTTTGAC 1920
 W N R D R D G L C H V E C N N M L N D F D (640)
 GACGGAGACTGCTGCGACCCCGAGGTGGCTGATGTGCGCAAGACCTGCTTTGACCCGAC 1980
 D G D C C D P Q V A D V R K T C F D F D (660)
 TCACCCAGAGGGGCATACATGATGTGAGGAGCTGAAGGAGGCCCTGCAGCTGAACAGT 2040
 S P K R A Y M S V K E L K E A L Q L N S (680)
 ACTCACTTCTCTCAACATCTACTTTGCCAGCTCAGTGCAGGAGACCTTGCAGGTGCTGCC 2100
 T N F L N I Y F A S S V R E D L A G A A (700)
 ACCTGGGCTTGGCACAAGGAGGTGTCACTCACCTGGGTGGCATTGCTCTCAGCCGACGA 2160
 T W P W D K D A V T H L G G I V L S P A (720)
 TATTATGGGATGCCCTGCCACACCGACACCATCATCCATGAAGTGGGACATGTTCTGGGA 2220
 Y Y G M P G H T D M I H E V G H V L G (740)
 CTCTACCATGTCTTTAAAGGAGTCAGTGAACACAAATCCTGCAATCACCCCTCAGCCAG 2280
 L Y H V F K G V S E R E S C N D P C K E (760)
 ACAGTGCCTCATCATGGAACGGGAGACCTCTGTGCCGACACCCGCCCACTCCCAAGACT 2340
 T V P S M E T C D L C A D T A P T P K S (780)
 GAGCTGTGCCGGGACAGAGCTTACTAGTGACACCTGTGGCTTCACTCGCTTCCGAGGG 2400
 E L C R E F E P T C D T C G F T R F P G (800)
 GCTCCGTTCAACCACTACTAGGCTACAGGATGATACCTGCACTGACAACTTCACTCCT 2460
 A F F T N Y M S Y T D D N C T D N F T P (820)
 AACCAACTGCCCCCAATGCAATGCTATTGGACCTAGTCTATCAGCAGTGGACTGAAGC 2520
 N Q V A R A M H C Y L D L V Y Q Q W T E S (840)
 ACAAAACCCACCCCATCCGCAATTCACCTATCGCTCATCGGACAGACCAACAAGTCCCTC 2580
 R K P T P I P I P P M V I G Q T N X S L (860)
 ACTATCCACTGGCTGCCCTCTATTAGTGGAGTTCTATATCAGCGGCTCAGCCACCTTC 2640
 T I H W L P P I S G V V Y D R A S G S L (880)
 TGTGGCGCTTGCATGAAGATGGGACCTTTCTGTCAGTATGTGCACACAGCTTCTCTCCGG 2700
 C G A C T F R Q Y V H T A S S R (900)
 CGGGTGTGTACTCCTCAGGTTATTTGACCCAGAGGAGGCTGTGGGGCCTCTGATGTG 2760
 R V C D S S G Y W T P E E A V G P D V (920)
 GATCAGCCCTCGAGCCCAAGCTTACAGGCGCTGGAGCCCTGAGGTCACCTGTACCATG 2820
 D Q F C E S S L Q A W S P E V H L Y H M (940)
 AACCAACCCCTCCCTGCCACAGAGGCTGTAGCTTGGAGCTGCTCTTCCACACCCG 2880
 N M T V P C F T E G C S L E L L F Q H P (960)
 GTCCAGCCGACACCCCTCACCTCTCGGTCACTTCTCTCATCGAGTCTCTCGCAGGTG 2940
 V Q A D T L T L W V T S F F M E S S Q V (980)
 CTCTTTGACACAGATCTTGTGCGAAACAGGAGTCACTGACCTTCCGCCCCCTTAGAC 3000
 L F D T E I L L E N K E S V H L G F L D (1000)
 ACTTTCTGTGACATCCCACTCACCATCAAAGTGCAGCTGGATGGGAGGTGTGGGGGTG 3060
 T F C D I F L T I K L H V D G K V S G V (1020)
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 K V Y T F D E R I E I D A A L L T S Q P (1040)
 CACAGTCCCTTGTGCTCTGGCTGCAGGCTGTGAGGTACAGGTTCTCCGCGATCCCCA 3180
 H S P L C S G C R P V R Y Q V L R D P P (1060)
 TTTGCCAGTGGTTTGGCCGCTGGTGGTACACATTCTCACAGGAAGTTACGGACGTGGAG 3240
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 V T P C Q M Y Q Y Q V L A E A G G E L G (1100)
 GAAGCTTGGCCTCTCTGAACACATTTCATGAGCTCCTTATTGTGGAGATCCGAAAGTC 3360
 E A S P P L N H I E C A P Y C G D G K V (1120)
 TCAGAGAGACTGGGAGAGAGTGTGATGATGGAGACCTTGTGAGCGGAGATGGCTGCTCC 3420
 S E R L G E E C D D G D L V S C D G C S (1140)
 AACCTGTGTGAGCTGGAGAGAGGTTCAACTGTGTAGGAGAGCCAGCCTTTGCTACATG 3480
 K V C E L E E G F N C V G E P S L C Y M (1160)
 TATCACCCACATCCATATGTGAACCTTTTACAGAAAAACGACATTGTAGACTGTGEC 3540
 Y E G D G I C E P F E R K T S I V D C G (1180)
 ATCTACACTCCCAAGCATCTTGGATCAATGGGCTACCCCGCCTTACTCTCTCATGAA 3600
 I Y T P K G Y L D Q W A T R A Y S S H E (1200)

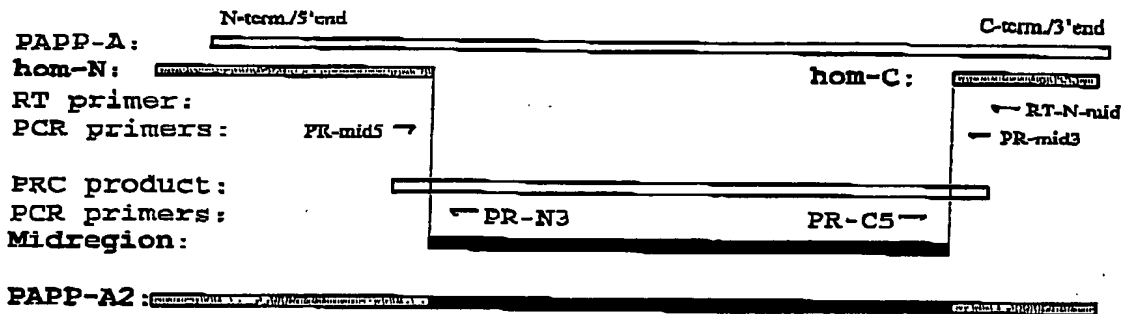
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GACAACAAGCACTGTCTCTTCTTCTGTAAGTGGAGAACCTCATTCCCTAATTGACACA 3850
 D K K K C P V S L V T G E P H S L I C T (1220)
 TCATACCATTCCAGATTACCCAACCAACCGTCCCTAACTGGCTGGTTTCCCTGTGTGCC 3720
 S Y H P D L P N H R P L T G W F P C V A (1240)
 AGTGAATATGAACTCAGGATGACAGGAGTGAACAGCCAGAGGTAGCCTGAAGAAAGAG 3780
 S E N R T Q D D R S E Q P E G S L K K E (1260)
 GATGAGGTTTGGCTCAAGTGTGTTTCAATAGACCAGGAGAGGCCAGAGCAATTTTATT 3840
 D E V W L K V C F N R P C E A R A I P I (1280)
 TTTTTCACAACCTGATGGCCAGTTCCTCCGGAGAGCATCAGCAGCCGACAGTGTCTCTAC 3900
 F L T T D G L V P G E H O O P T V T L Y (1300)
 CTCACCGATCTCCCTGGAGCAACCACTCTCTTGGAACTATGAGTGTCTATGCCAGCAT 3960
 L T D V R G S N H S L G T Y G L S C O H (1320)
 AATCCACTCATTATCAATGTGAACCATCACCAGATGTCTTTTCCACCATACCACTCA 4020
 N P L I I N V T H H Q N V L F H H T T S (1340)
 GTGCTGCTGAATTTCTCCTCCCAACCGTCCCATCTCAGCTCTGCTCTAAGGACATCC 4080
 V L L N F S S P R V G I S A V A L R T S (1360)
 TCCCGCATTTGCTCTTTCGGCTCCAGTAACTGCATCTCAGCAGCCAGCCGAGCAATCAT 4140
 S R I G L S A P S N C I S E D S G Q N H (1380)
 CAGGACAGAGCTGTATCCAGCCCTGTGGGAGCAGGACAGCTGTCCGTCTTCTGCTG 4200
 Q G Q D S R P C G K Q D S C P S L L (1400)
 CTTGATCATGCTGATGTGGTGAAGTGTACCTCTATAGGCCAGGTCTCATGAAGTGTGCT 4260
 L D H A D V V N C T S I G P G L M K C A (1420)
 ATCACTTCTCAAGGGGATTTGCCCTTCAGGCCAGCAGTGGGAGTACATCAGGCCCATG 4320
 I T C Q R G F A L Q A S S G Q Y I R F M (1440)
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 Q K E I L L T C S S G H W D Q N V S C L (1460)
 CCGTGGACTGCGGTCTTCCGACCCCTCTTCTGTAAGTATCCAACTTCTCTGCTCA 4440
 P V D C G V P D F S L V N Y A N F S C S (1480)
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 E C T I S C V P F A K L Q (1500)
 GGACTGAGCCATGGCTGACATGTCTTGAAGTGGTCTCTGCTCTCTCCCTGAAGTCTAC 4560
 G L S P W L T C L R E G L W S L P E V Y (1520)
 TGCAAGTTGGAGTGTGATGCTCCCTTATTCTTGAATGCCAAGTGTCTCTGCTCTCAC 4620
 C K L E C D A P P I I L N A N L L L F H (1540)
 TGCTCCAGCACAACCAAGCAGGCTGGGACCATCTGCAATATGAATGCAACCAAGGATC 4680
 C L Q D N H D V G T I C K Y E C K P G Y (1560)
 TATGTGGCACAACCTCCAGGGTAACTCAGCAACCAAGTCTGTAAGATACAAATGCTG 4740
 Y V A E S A S G K V R N K L L K I Q C L (1580)
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 R G C I W G S C I F V V C E P P P F (1600)
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 V F E G M Y E C T N G P S L D S Q C V L (1620)
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 N C N O E R E K L P I L C T K R G L W T (1640)
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 Q E F K L C E N L Q G E C P P P P S E L (1660)
 AATTCTGTGGAGTACAAATGTGAACAGGATATGGGATTGGTGCAGTGTGTTCCCATTTG 5040
 N S V E Y K C E Q G Y G I G A V C S P L (1680)
 TGTGTAAATCCCCCAGTGACCCCGTGTGCTACCTGAGAATATCACTGCTGACACTCTG 5100
 C V I P S D P V N L P E N I T A D T L (1700)
 GAGCACTGGATGGAACCTGTCAAAGTCCAGAGCATTGTCTGCACTGGCCGGGCTCAATGC 5160
 R H W N E P V K V Q S I V C T G R E Q W (1720)
 CACCCAGACCCGCTCTAGTCCACTGCACTCAGTCATGTGAGCCCTTCCAAGCAGATGGT 5220
 H P D P V L V H C I Q S C E P F Q A D G (1740)
 TGGTGTGCACTATCAACACCGAGCCTACTGCCACTATGACGGGGAGACTGCTGCTCT 5280
 W C D T I N R A Y C H Y D G G D C C S (1760)
 TCGACACTCTCTCCAGAAAGGTCAATTCATTGTCTGCTGACTGTGACCTGCAATGAGTGC 5340
 S T L S S K K V I P F A A D C D L D E C (1780)
 ACCTGCCGGGACCCCAAGGCAGAAGAAATCACTAA 5376
 T C R D P K A E E N Q * (1791)

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Figure 2 (page 1 of 1)



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PA2 ~~-----~~ 120
PA ~~-----~~ 80

N-terminal residue of mature PAPP-A2 (Ser-234)↓

PA2 AVEEPAATVYEDSFIGSELLGDDDAYLGNQSKESLGEAGIOKGSAMATTTTATFTTLEFKFETQRRGWAKSRQRRQVWKRAEDGQGPSGIISSIFQWPKHSLKRVKKSPPPEESN 240
PA ~~-----~~

PA2 QNGGEGSYREARTFNSQVGLPILYFSGRERLLRLPEVLAEIPREAPTVBAWVRPEGGQNNPATTAGVDN~~-----~~ 360
PA ~~-----~~ 192

↑ N-terminal residue of mature PAPP-A (Glu-61)

PA2 FGTWTHVAATYDGRHMAIYVDGTQVASSLDOSGFLNSPFWAS~~-----~~ 400
PA PGQNVYLAATYDGPFMKLYVNGAQTATSGEGVGISFLTKQKRVLMGG--SALNHNRYGYIEHFSWKVARTQREILSDMETHGARTALEQLLQENWNVKHAMSPMKDSSPKVEF 310
~~-----~~

LNR1

PA2 LQCFEPEDBILQDQ~~-----~~ 600
PA QNANG--FLDTSLEFLTSG~~-----~~ 478

LNR2

PA2 LNPFTGYDQD~~-----~~ 718
PA NHTLTGHDGCT~~-----~~ 548

PA2 ~~-----~~ 820
PA ~~-----~~ 668

PA2 ~~-----~~ 958
PA ~~-----~~ 788

PA2 ~~-----~~ 1075
PA ~~-----~~ 907

PA2 ~~-----~~ 1185
PA ~~-----~~ 1027

PA2 ~~-----~~ 1314
PA ~~-----~~ 1135

SCR1

PA2 ~~-----~~ 1434
PA ~~-----~~ 1253

SCR2

PA2 ~~-----~~ 1552
PA ~~-----~~ 1373

SCR3

PA2 ~~-----~~ 1666
PA ~~-----~~ 1491

SCR4

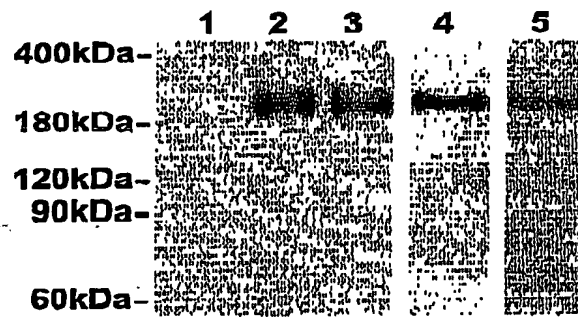
PA2 ~~-----~~ 1785
PA ~~-----~~ 1611

LNR1

PA2 ~~-----~~ 1785
PA ~~-----~~ 1611

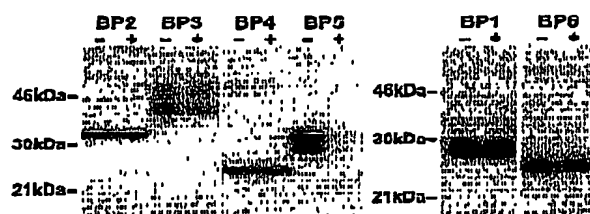
PA2 KASBNQ----- 1791
PA QACNHSKDLRGYSHG 1627
1791

Figure 4 (page 1 of 1)



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Figure 5 (page 1 of 1)



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Figure 6 (page 1 of 1)

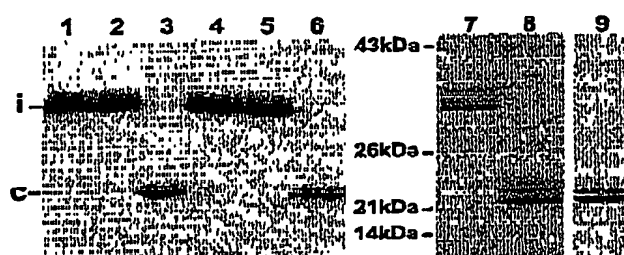


Figure 7 (page 1 of 2)

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AATCAGGTGC	TGTGGGAAGG	AGAACGTTGT	TGCTGGGCGC	CCAAGCTTTC	AAGACCCAGA	180
GCTTCTCCAC	AGCATCACCT	CTTTGGAGTC	TACCCAGCA	GGGCTGGGAA	CTACCTAAGG	240
CCCTACCCCG	TGGGGGAGCA	AGAAATCCAT	CATACAGGAC	GCAGCAAAAC	AGACACTGAA	300
GGAAATGCTG	TGAGCTTGT	TCCCCCAGAC	CTGACTGAAA	ATCCAGCAGG	ACTGAGGGGT	360
GCAGTTGAAG	AGCCGCTCC	CCCATGGGTA	CCCATAGTCT	CTATGGGCA	ATCTGAGCTG	420
CTGGGAGATG	ATGACGCTTA	TCTCGGCAAT	CAAAGATCCA	AGGAGTCTCT	AGGTGAGGCC	480
GGGATTACAA	AACGCTCAGC	CATCGCTGCC	ACTACTACCA	CCGCCATTTT	CACAACTCTG	540
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CCAGGCACAT	GGACCCATGT	GGCAGCCACT	TACGATGGAC	GGCAGATGGC	CCTGTATGTG	1140
GATCCCACTC	ACGTGGGTAG	CAGTCTAGAC	CAGTGTGCTC	CCCTGAACAG	CCCTCTCATG	1200
GCATCTTCCC	GCTCTTTGCT	CTTGGGGGGA	GACAGCTCTG	AGGATGGGCA	CTATTTCCGT	1260
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AGTTCTCAGC	ATTCAAGTGG	GGAGGAGGAA	GGGACTGACT	TGCTCTGAC	AGCGAGCTTT	1380
CACCTCTGCA	ACACAGAGTG	GGTCTCCCTT	AGAGATGAGA	AGTACCCACG	ACTTGAGGTT	1440
CTCCAGGGCT	TTGAGCCAGA	GGCTGAGATT	CTGTCCCTCT	TCCAGCCCCC	ACTGTCTCCC	1500
CAACACAGTCT	GTGACATGTG	GGAAATTGATC	TCCAGTACA	ATGGATACTG	GGCCCTTCGG	1560
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GAGCACCCAC	TACAGGGCTA	TGATGGGGGT	GACTGCCGCC	TGCAGGGCCG	CTGCTACTCC	1860
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CACCCACACT	CCTGCGAGCC	CCAGTGGGCT	GATGTGCGCA	AGACCTGCTT	TGACCCGTGAC	1980
TCACCAAGA	GGGCATACAT	GAGTGTGAAG	GAGCTGAAGG	AGGCCCTGCA	CCTGAACAGT	2040
ACTCACTTCC	TCAACATCTA	CTTTCACAGC	TCAGTCCGGG	AAGACCTTGC	AGGTGCTTCC	2100
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CTCTACCATG	TCTTTAAAGG	AGTCACTCAA	ACACAATCCT	GCAATCAACC	CTGCAAGGAG	2280
ACAGTGCCAT	CCATGGAAAC	GGGAGACCTC	TGTGCCGACA	CCGCCCCAC	TCCCAGAGT	2340
GAGCTGTGCC	GGGAACCCACA	CCCCACTAGT	GACACCTGTC	GCTTCACTCG	CTTCCAGGG	2400
GCTCGGTTCA	CCAACTACAT	GAGCTACACG	GATGATAACT	GCACTGACAA	CTTCACTCCT	2460
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ACTATCCACT	GGCTGCCTCC	TATTAGTGA	GTTGTATATG	ACAGGGCCTC	AGGCAGCTTG	2640
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CACAGTCCCT	TGTGCTCTGC	CTCCAGGCCT	GTCAAGTACC	AGGTTCTCCG	CGATCCCCCA	3180
TTTGCCAGTG	GTITGCCGCT	GGTGGTGACA	CATTCTCACA	GGAGTTTCA	GGACGTGGAG	3240
GTCAACACTC	CACAGATGTA	TGAGTACCAA	CTTCTAGCTG	AAGCTGGAGG	AGAACTGGGA	3300
GAAGCTTCCG	CTCCTCTGAA	CCACATTCAT	GGAGCTCCTT	ATTGTGGAGA	TGGGAAGGTG	3360
TCAGAGAGAC	TGGGAGAGAA	GTGTGATGAT	GGAGACCTTG	TGAGCGGAGA	TGGCTGTCTC	3420
AAGGTGTGTG	AGCTGGAGGA	AGGTTTCAAC	TGTGTAGGAG	AGCCAAAGCCT	TGCTACATC	3480
TATCAGGCGAG	ATGGCATATG	TGAACCTTTT	GAGAGAAARA	CCAGCATGTG	AGACTGTGGC	3540
ATCTACACTC	CCAAAGGATA	CTTGGATCAA	TGGGCTACCC	GGGCTTACTC	CTCTCATGAA	3600
GACAAGAGAA	AGTGTCTGCT	TTCTTGGTA	ACTGGAGAAC	CTCAITCCCT	AATTTGCACA	3660
TCATACCATC	CAGATTACCC	CAACCAACCT	CCCCAATCTG	GCTCCTTCC	CTCTCTTCCC	3720
AGTGAAGATG	AAACTCAGGA	TGACAGGAGT	GAACAGCCAG	AAGGTAGCCT	GAAGAAAGAG	3780
GATGAGGTTT	GGCTCAAACT	CTCTTTCAAT	AGAACACCCG	AGCCCAAGAGC	AATTTTATTT	3840
TTTTTGACAA	CTGATGGCCT	AGTTCCCGGA	GAGCATCAGC	AGCCGACAGT	GACTCTCTAC	3900
CTGACCGATC	TCCCTCCAAAC	CAACCACTCT	CTTCCAAAGT	ATGGACTGTC	ATGCCAGCAT	3960
AATCCACTGA	TTATCAATGT	GACCCATCAC	CAGATGTGCC	TTTTCCACCA	TACCACTCTA	4020
GTGCTGTCTG	ATTTCTCATC	CCCCAGGGTC	CCCATCTCAG	CTGTGGCTCT	AAGGACATCC	4080
TCCCGCATTG	GTCTTTCGGC	TCCAGTAAC	TGCATCTCAG	AGGACGAGGG	GCAGATTCAT	4140
CAGGACAGAG	GCTGTATCCA	TCCGCCCTGT	GGGAGCAGG	ACAGCTGTCC	GTCAITGCTG	4200
CTTGATCATG	CTGATGTGGT	GAAGTGTACC	TCTATAGGCC	CAGGTCTCAT	GAAGTGTGCT	4260
ATCACTTCTC	AAACCCGATT	TCCGCTTCAG	CCCAGCAGTG	GCCAGTACAT	CAGGCCCATG	4320

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CAGAAAGAAA	TTCTGCTCAC	ATGTTCTTCT	GGGCACTGGG	ACCAGAATGT	GAGCTGCCTT	4380
CCCGTGGACT	GCGGTCTTCC	CCACCCCTCT	TTCCCTCAACT	ATCCAAACTT	GTGCTGCTCA	4440
GAGGGAACCA	AATTTCTERA	ACGCTGCTCA	ATCTCTTGTG	TCCCAACAGC	CAAGCTGCAA	4500
GGACTCACCC	CATGGCTGAC	ATCTCTTCAA	CATGGCTCTT	GGTCTCTCCC	TGAAGTCTAC	4560
TGCAACTTGG	AGTGTGATGC	TCCCCCTATT	ATTCTGAATG	CCAACCTTGT	CCTGCCTCAC	4620
TGCCCTCCAGG	ACAACCACGA	CGTGGGCACC	ATCTGCAAAT	ATGAATGCAA	ACCAGGGTAC	4680
TATGTGGCAG	AAAGTGACGA	GGGTAAAGTC	AGGAACRAGC	TCCTGAAGAT	ACAATGCCCT	4740
GAAGGTGGAA	TCTGGGAGCA	AGGCAGCTGC	ATTCCTGTGG	TGTGTGAGCC	ACCCCTCTCT	4800
GTGTTTGAAG	GCATGTATGA	ATGTACCAAT	GGCTTCACCC	TCCACAGCCA	GTGTGTGTGT	4860
AACTGTAAAC	AGGAACGTGA	AAAGCTTCCC	ATCCTCTGCA	CTAAAGAGGG	CCTGTGGACC	4920
CAGGAGTTTA	AGTTGTCTCA	CAATCTCCAA	CGAGAATCCC	CACCAACCCC	CTCAGAGCTG	4980
AATTCCTGTG	AGTACAAATG	TGAACARAGA	TATGGGATTG	GTGCAGTGTG	TTCCCCATTG	5040
TGCTTAATCC	CCCCCACTGA	CCCCCTCATC	CTACCTCAGA	ATATCACTGC	TGACACTCTG	5100
GAGCACTGGA	TGGAACCTGT	CAAAGTCCAG	AGCATTTGTG	AGCCCTTCCA	AGCAGATGCT	5160
CACCCACAGC	CCGTCTTACT	CCACTGCATC	CAGTCATGTG	ACGCGGGAGA	CTGCTGCTCT	5220
TGCTGTGACA	CTATCAACAA	CCGAGCCTAC	TGCCACTATG	ACTGTGACCT	GGATGAGTGC	5280
TCCACACTCT	CCTCCAAGAA	GGTCATTCCA	TTTCTCTCTG	GGGAACAAGC	CCCTCCCTCC	5340
ACCTGCCCGG	ACCCACGTAG	AGAGAGAGGC	CGATAACTGT	GGAAACAAG	GGTGAATGAA	5400
ACTGCTCTAG	CAAGAGTAA	AAAGAGGAGG	CGACCCAGGA	AGGATCTTAT	AGAAATGCA	5460
GAAGAACAAT	CATGAATGAG	AAAGAGGAGG	TCAGTAGGCC	CRAGTAGGAG	AGAAATGCA	5520
AGAGGATATT	GATAGCTGTG	AACTAGTTCA	AACATGCAAG	CGGAATATG	ATAGATATAT	5580
GCAAAAGTTT	CTTTAAAGTG	GCAGTTGATG	TAATCTCTAT	CCTCAACTCT	TGCCCTGCTC	5640
AAAGACCCCT	CTCCCTCACT	TATATTCTAT	CCACCCAAC	TGTAACCCAA	TACCAAAATA	5700
TCCGCTCCAC	CCCCCTGCCAA	CTACTCAGTC	ATACCCATT	TGAATGGATT	GCCATCTTTC	5760
CTCAGAGGAG	AGTTGGCAGG	GATACTGTTA	TCCTTTTGTG	TAGTTTCCCT	TAAATATGTA	5820
ACACCTTGTG	TGCTCTCAAG	TCCCTCTTCT	AACATAATTA	TATTAATATA	TTATATATAT	5880
AGTTAGTTAT	TAATCTTTTA	TAAGTATTTA	TTATTCATG	TTCCACACAT	GCTGCTGTGA	5940
TATATTTTTT	CTCTGTTTACT	AAGCTAAAAA	TGAGGACAGA	AAGGCAACTT	ATTTTCCCAT	6000
AGTTCACTAT	CAAGATGAAT	GTGAGACTTT	TGGGAGTAC	AGAAAGAGAG	AGAGTAATTA	6060
CTTTCTATGG	ATGCGGATTC	GCAGGTTGAA	TAATCATCTT	TTTTTTTATG	ACCTGGCACC	6120
GATGGAATTC	TGGATGCTAG	CATGTAAGAG	AGTTGGAATG	GTGCTACTAA	GAGGCATAGG	6180
TGGGCCCCATT	TTATGACCAA	GGAGATGGGG	TCCAGAGAAA	CTACACTATC	CTTCTTCAAT	6240
AAAGTTGAGT	TGAATACCAT	TGCTGATGAG	TCACACTCTC	ACAACTCCCA	ACTGGAGTCT	6300
ATCTGTCCAC	AAAGAAATATA	CTAATCTTTC	CATCCCTGTT	CCAAGTCTGG	CTGTCAAGCA	6360
GTGAGACCTA	GGATTTTCTG	CACCTTCCCA	TGATCACCAG	GATTACAGGA	ACTCACACAC	6420
GTCAACAAGT	TTGTACTATG	GCCCATCTCT	TGTTAGAAAT	CTCCAAGTCT	GGCCAGTCTC	6480
TCCTCTACTT	TGGCCCTGAG	TCCTACTTCT	AATTTTATGG	AAATGATATA	GGGGAAAGGT	6540
ATGACCAAGT	GTGGAAGAAA	CTGGAGGAAA	TCAGGCTTAA	ATCCAGGCCC	GGGCATGAGA	6600
GGGACGACAT	CAAAACAACAG	GCAAGAGCTG	TTCCAACTCT	CCAAAGAGAA	CCAAAGTGGG	6660
ATGGAAAGTA	TCAGGGAGAC	TCGGTCCCTG	TTCTCTTCAA	GTATCATGTA	CAAAATCTGT	6720
TCCCTTGAGC	AATGAAGAAAT	CTGAGATAAA	GGAAATGCAAT	GGACCAACCC	TCACACTCTC	6780
GAGCCAGAGA	TTTTGACTTG	AGCAAGCCAT	GGAAATGCAAT	GTGTTTTTAA	CCCTTTCTTA	6840
TGGGGAGACA	GAAAGATTTT	AACATTTTAA	TGTCCTATT	TCTCTCTATT	TACATCCCA	6900
TCCAATGAT	GGAAATGACA	TGAATGACC	ATATTAACCC	AAOGTTTTCT	GGATTAGACC	6960
GCTCACTGGG	ATGTGATCTA	CTGCAGTTAC	ATTTCTTGT	CTAGTTTTAC	TCATTTTACC	7020
CTAGGGGAAAG	TGACTAACCA	CCCACTTTCT	CTTAAACAT	CTAGTTTTAC	TCATTTTACC	7080
AAAGCTGTGA	GTAGGAGCTG	TCCTCTTCT	AGTTCTTCT	CCATGGGAAA	CCAAGAACAG	7140
ACAAAATTTA	CACCTCAGCT	CTCATCTTCT	CTCATCTTCT	CTCATCTTCT	TTTGACCACA	7200
GTITTTCTAC	TCITCCCCTC	AACTAGAGG	CAATGGCTGT	GCAATAGGA	ATAGGAAATA	7260
CTACCACAAAT	GATAGAAATA	TTATCCACAC	TATCAGTAG	GGAAAGACAA	TATCCTGAAA	7320
GAGAAATAAA	CACGAATAAG	GTGATGTACC	CACATTAATC	TGTGGGTTTG	TGGAATGAGG	7380
TTTGCAAACT	TATTGCGAAA	AGCAAGAGGC	AGAGTTCCAC	CATTCAAAAA	AAACCTTTTG	7440
CTTACTAATC	TCTAGTGTA	AGAAATGTA	GTTCAGATAC	CATTCAATGT	CTTGGGTCAT	7500
GCTTAGTGCC	CCCAAGGACA	CAAAACATAT	TATTTCTGGG	ATTTCTGATG	GCITCAATAT	7560
CCAAAGGACA	ATGGAAAAGT	TTAGACACTC	TATTTTCAAA	ATTTTATAAA	CTTGTTTTAT	7620
TGGGAAAAT	GTCCAAATTG	CTAGACACAT	TCTAAGTTCT	GCCTTGGAGA	ATCCTACTTT	7680
GTCTGAGATT	GAGGCAGAGG	AATTGTTATC	CTGCGCATTA	CTCAGGTCAG	GAAATGAGG	7740
CCTGTGGTTC	ATGCCAGTGT	GTGTCTTCAT	GCAGTCTCTC	CACAAGAGCA	ACAGTAAGAA	7800
CATTTCGTGT	TTAAATTTCA	TTTTAAATA	TTTTATATAT	TGCAATTCAC	CAGTCTCTCT	7860
GGAAAGCAAA	AGGAAGTTTC	CTGTTGTGTG	TGAAGAGCCT	CTTAGGCTAT	AAGGCTTCCC	7920
ACCCATACCT	AGCTATAGCT	ATTCACACAC	ACCAGCTTCT	TCCAGTCTTT	GTTCCTGGGA	7980
CTGATGTTT	TGAGCAACTC	AGGTCACTGA	TAAAGTGGAA	GGACTRAGAC	ACTGTGGTCA	8040
CACATCCCA	CAACATCAAC	TCACACTCAA	TCCATGTGGT	GGTCCACATT	CTGCTACTCT	8100
TATCCACCCA	TGTGGTCTAT	GAGAGCCTTT	CTCAGAGACT	CTTCTGTGTG	TTTGATTGTG	8160
CCACGCTCCC	CCAGGCTTAG	CTGGCTCTAA	CACTAGCAT	GACAGCCTCC	AATCAGAAAG	8220
GCAGGTAAAG	GGACAGGTTG	AGGAGAATGG	GCAGATACTG	ACAGAAATTA	AAGTAAGGG	8280
ATTGCTAAAG	TAAAGAGCTC	TTCTGTATTC	TCACTCTTCT	TTTTTCTAT	TACAGGCAAT	8340
TGAATTTGGC	ACTTCCTGTA	TTCTTTTGA	TCATCTATGA	GTGCATTAGT	TAACCCCAA	8400
GGGATGCTCT	TGATTTGGGA	TGTAGTGAAA	GGAGCTGATC	TACTGTATTC	TAATGTAAAA	8460
CAGCTACAGC	CAGTTATTTT	GTAAGATTAT	AAGTTGTTCA	TTAAAAAATC	AGCACACAAA	8520
ATATGAA						8527

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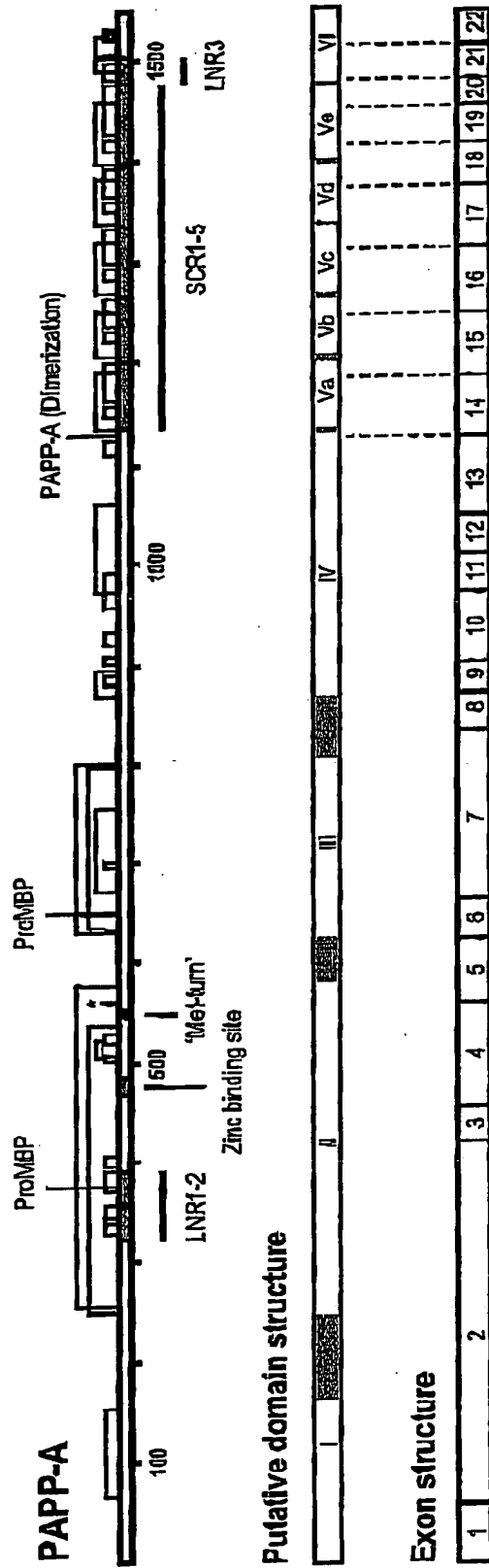


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